

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 2, 5, 6, 8, 11, and 12 are currently pending in the present application; Claims 4 and 10 are canceled by the present amendment and Claims 3, 7, and 9 were canceled by previous amendments; Claims 2 and 8 are amended by the present amendment. Support for the amendments is found at least in the originally filed specification on page 12, line 21, to page 13, line 1. Thus, no new matter is added.

In the outstanding Office Action, Claims 2, 4, 8, and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Gilbert et al. (U.S. Patent No. 6,016,311, hereafter "Gilbert") in view of Inata (U.S. Patent No. 5,910,953); Claims 5 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Gilbert and Inata and further in view of Baden et al. (U.S. Patent No. 6,353,598, hereafter "Baden"); and Claims 6 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Gilbert and Inata and further in view of Yun (U.S. Patent No. 6,463,295).

In response to the rejection of Claims 2, 4, 8, and 10 under 35 U.S.C. § 103(a) as unpatentable over Gilbert and Inata, Applicants traverse this rejection for the following reasons. Pending Claim 2 recites, in part:

A method of allocating radio resources comprising  
...  
obtaining a current ratio between the traffic of the  
uplink and the traffic of the downlink based on current traffic;  
and  
obtaining a weighted average of the empirical data  
corresponding to a present time period and the current ratio by  
weighting the empirical data and the current ratio with  
respective weighting factors that are determined on a base-  
station-specific basis depending on volatility of traffic, wherein  
said allocating the radio resources allocates the radio resources  
to the uplink and the downlink according to the weighted  
average.

Claim 8 includes similar features. Therefore, all arguments made on behalf of Claim 2, also apply to Claim 8, and claims dependent therefrom.

Gilbert describes dynamically changing the time slot ratio for a link based upon the constantly varying service and user bandwidth requirements.<sup>1</sup> Gilbert then reexamines, based upon the information gathered by the communication system, from time to time, the ratio of uplink and downlink time slots, so that the system can dynamically reconfigure the time slot ratio according to each link's bandwidth needs.<sup>2</sup> Gilbert does not describe a **weighted average** of the empirical data and the current ratio is obtained by **weighting the empirical data and the current ratio** with respective **weighting factors** that are determining on the base-station-specific basis **depending on volatility** of traffic, as recited in Claim 2. In other words, if the downlink and uplink traffic tends to be volatile or irregular at a given base station, the current ratio may be a more appropriate indicator than the empirical data, so that the weighting factor for the empirical data may be set smaller while setting the weighting factor for the current ratio to a larger value.<sup>3</sup> Gilbert does not describe using **weighting factors** that are determined on a base-station-specific basis **depending on volatility** of traffic, as recited in Claim 2. Rather, Gilbert describes a method which uses a set of predefined bandwidth utilization parameters,<sup>4</sup> tracks rejected session requests,<sup>5</sup> and filters or smooths out the utilization parameters' moments of the instantaneous bandwidth consumed for the uplink and the downlink needs.<sup>6</sup> Gilbert, then describes a moving average version of the uplink and downlink bandwidth requirements of the rejected sessions.<sup>7</sup> Gilbert's method of dynamically changing the time slot ratio uses a different set of base station parameters

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<sup>1</sup> Gilbert, col. 8, lines 15-27.

<sup>2</sup> Gilbert, col. 8, lines 24-31.

<sup>3</sup> Specification, page 12, line 21 to page 13, line 1.

<sup>4</sup> Gilbert, col. 15, lines 50-56.

<sup>5</sup> Gilbert, col. 15, lines 56-63.

<sup>6</sup> Gilbert, col. 16, lines 1-5.

<sup>7</sup> Gilbert, col. 16, lines 24-25.

depending on **whether or not a session** is rejected.<sup>8</sup> Regardless of the particular base station, Gilbert does not describe obtaining a **weighted average** of the empirical data corresponding to a present time period and the current ratio by **weighting the empirical data and the current ratio** with respective **weighting factors** that are determined on a base-station-specific basis **depending on volatility** of traffic, wherein said allocating the radio resources allocates the radio resources to the uplink and the downlink according to the weighted average, as recited in Claim 2.

Furthermore, Inata is also deficient in the above-described feature. Inata describes holding allocation information of a time slot which is used to transmit a cell as a transmission unit in asynchronous transfer mode (ATM) communication. Inata describes allocating a corresponding number of time slots to the traffic in the days of the week or the respective time zones.<sup>9</sup> Inata does not describe obtaining a **weighted average** of the empirical data corresponding to a present time period and the current ratio **by weighting the empirical data and the current ratio with respective weighting factors** that are determined on a base-station-specific basis **depending on volatility** of traffic, wherein said allocating the radio resources allocates the radio resources to the uplink and the downlink according to the weighted average, as recited in Claim 2.

Accordingly, as neither Gilbert nor Inata describe the above-described features of Claims 2 and 8, Claims 2 and Claim 8 are patentably distinguishing over the combination of Gilbert and Inata. Therefore, it is respectfully requested that the rejection of Claims 2, 4, 8, and 10 under 35 U.S.C. § 103(a) as unpatentable over Gilbert in view of Inata be withdrawn.

With respect to the rejection of Claims 5 and 11 under 35 U.S.C. § 103(a) as unpatentable over Gilbert and Inata in view of Baden, Applicants respectfully traverse this rejection for the following reasons. As discussed above, independent Claims 2 and 8 are

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<sup>8</sup> Gilbert, col. 15, line 64 to col. 16, line 45.

<sup>9</sup> Inata, col. 5, lines 8-16.

believed to be allowable. Further, it is respectfully submitted that Baden does not supply the claimed feature identified as deficient in Gilbert and Inata.

It is therefore respectfully requested that the rejection of Claims 5 and 11 under 35 U.S.C. § 103(a) over Gilbert and Inata in view of Baden be withdrawn.

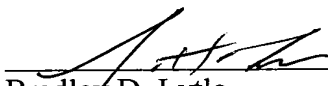
In response to the rejection of Claims 6 and 12 under 35 U.S.C. § 103(a) as unpatentable over Gilbert and Inata in view of Yun, Applicants respectfully traverse this rejection for the following reasons. As discussed above, Claims 2 and 8 are believed to be allowable. Further, it is respectfully submitted that Yun does not supply the claimed feature identified as deficient in Gilbert and Inata.

It is therefore respectfully requested that the rejection of Claims 6 and 12 under 35 U.S.C. § 103(a) over Gilbert and Inata in view of Yun be withdrawn.

Consequently, in view of the foregoing discussion and present amendment, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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